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ABSTRACT

Competency based education (CBE) programs can increase pupil motivation, provide the opportunity to individualized instruction, and enable the school to communicate better to the pupil and the public what pupils are learning in school, according to the author. But he lists eight traps that lie hidden in the CBE movement, including further strengthening of state control at the expense of local control, trivializing of curriculum and confusing of minimum standards with maximums, failure to provide remedial instruction for students who fail all or parts of minimum competency tests, and permitting students to leave school early on the basis of test results. The author concludes by examining some issues raised by CBE, such as, To what extent do we want the schools to serve a screening role for society? (Author/DS)

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COMPETENCY BASED EDUCATION --

TRAP OR OPPORTUNITY

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COMPETENCY BASED EDUCATION - TRAP OR OPPORTUNITY

Eugene R. Howard

I'd like to introduce the topic of competency based education to you by describing an experiment which took place in the laboratory school of a well-known west coast teacher training institution. One day, Miss Mary Ward, the lab school's supervisor of arithmetic, was discussing the arithmetic program with some of her pupils. During this discussion the pupils pointed out to her that the work which she had planned for them did not fit all of them. Some pupils had already mastered the competencies which Miss Ward had been teaching while other pupils were not yet ready for them.

As a result of this discussion the teachers in the school devised a new kind of lesson plan -- a plan written for the learner instead of for the teacher. After some experimentation, the teachers found that there were two keys to successfully using this new kind of lesson plan:

1) The plan must be self-instructional - that is, assignments and explanations should be written so simply and clearly that children could, to a large extent, teach themselves.

2) The child should demonstrate mastery of one set of competencies before proceeding to another set.

At the end of the first year of the experiment it was found that the slowest pupil in the class successfully completed a full year's work. The fastest pupil had completed two year's work.

As a result of the experiment the curricula in all subjects taught in the school were reorganized. Teachers identified what they wanted their pupils to learn, then designed individualized lesson plans to help them learn at their own rate. The school became well-known for its competency based, individualized program and soon became highly influential in helping other schools throughout the country as they developed similar curricula.

It may come as no surprise to you to find out that the experiment just described took place in 1912. The school was the laboratory school of the San Francisco Normal School.

Two years later, in 1914, Carleton Washburn joined the staff of the normal school. Dr. Washburn, who might be described as one of the founders of progressive education, became an advocate of individualized instruction. Several years later he introduced the concept into the Winnetka, Illinois school system and the Progressive movement and competency based education were under way.

I tell this anecdote because I want to make the point at the outset that the idea of competency based education has been around a long time -- at least since 1912. It has flourished and waned as various political and ideological winds affected our educational practices. But it is not a new idea.

Today there is, I believe, a tendency to make competency based education more complex than it has to be. Basically it is a fairly simple and straight-forward concept, consisting of three components:

1) You define what it is you would like pupils to learn how to do.

2) You devise a way for learners to demonstrate that they can do it - and

3) You certify the learner's competence to do what they have demonstrated.

This basic concept has not changed since 1912.

The title of my remarks today is "Competency Based Education - Trap or Opportunity".

My presentation is organized into three main parts. First I'd like to talk about some of the opportunities this movement offers us - opportunities to make learning more exciting and more meaningful - opportunities to communicate more effectively to learners, parents, and to the general public what is being learned - and the opportunity to assure our patrons that we are graduating pupils who possess at least those basic skills necessary to function as adults in our society. Secondly I'll be talking about some traps and pitfalls we need to avoid. Some of these traps could be disasterous.

It is possible, for example, that we could legislate our school system back into the last century.

Thirdly, I'll mention and comment briefly on each of the eight issues listed in your program. It is these and related issues that we hope will form a structure for your discussions and your reports of these discussions during the conference.

Opportunities Offered by the Movement

Several programs will be described during this conference which will illustrate the types of opportunities for improving schools which are offered by the competency based education movement.

You'll hear, for example, from Irv Moskowitz, principal of Denver's Career Education Center. This center operates all of its courses under the competency based education concept. Pupils know specifically what they are expected to learn. When they demonstrate mastery of a competency, that mastery is certified by the school. The school also has a system for reporting what pupils are able to do to future employers or to other schools.

You'll also hear from Yvette Gallegos, a media center specialist from Colorado Springs. Yvette has developed competency based units of instruction for teaching elementary pupils how to use the library. Her techniques can be used equally well for developing individualized competency based units of instruction for any elementary school subject.

You'll hear from Jim Findlay, one of the developers of the competency based graduation program at the Westside School District in Omaha. Jim will describe how their program was developed and how it functions. The Westside program has become nationally known and many people point to it as a model. Barry Beal, from the Denver Public Schools, will describe how Denver's competency based graduation program works. The Denver program is the country's oldest. It's been in operation now for almost 20 years.

Chris Pipho, of the Education Commission of the States, is here to describe a variety of competency based education programs in operation in various parts of the country. Many of these programs can serve as models for the kind of program we might develop in Colorado.

Many competency based educational programs have been developed in alternative schools. In such schools there is usually a strong dedication to individualizing instruction and a great need to document what each pupil has learned how to do. These techniques can be used in any program. Mike Reynolds from Denver's PACE Alternative School will describe the PACE program.

The competency based education movement in both elementary and secondary schools has been stimulated by the Individually Guided Education program sponsored by the Kettering Foundation. IGE programs provide for an individualized curriculum which enables pupils to progress on the basis of what they have learned. Several Colorado schools have organized exemplary IGE programs.

Mr. Frank McQuarrie, the Colorado Department of Education consultant on IGE is present at this conference, and will offer a small group session on IGE. He would be pleased to discuss this program with any of you who might be interested.

A commonly used device for implementing competency based educational programs is the learning contract. Contracts can specify in advance what competencies are to be mastered and individual pupils can be involved in determining which learning activities will be prescribed to help them achieve the competencies most effectively. One such program, in operation in La Junta, will be described by Harold Longan, La Junta's assistant superintendent for special services.

These programs are representative of the kinds of opportunities the competency based education movement offers. I believe that these individuals can demonstrate to you a variety of ways to translate this movement into programs which will increase pupil motivation, enable pupils to learn more, and enable the school to communicate better to the pupil and the public what our pupils are learning in school.

During the first part of this presentation you've had a preview of some of the promise of competency based education. Properly implemented, CBE can offer us the following:

1) Educational programs which enable pupils to progress at their own best rate, moving from one lesson to another only after they have demonstrated specified competencies.

2) Systems for reporting pupil progress to parents on the basis of what the pupil has learned how to do. Such reporting is much more specific than the usual A, B, or C grade.

3) Opportunities for pupils to participate in planning their own learning activities through developing independent study contracts designed to improve pupil competence in well-defined ways.

4) Assurance to the general public that high schools will graduate only those pupils who have demonstrated that they possess those minimal competencies to function adequately as adults.

Some TRAPS

The title of the presentation refers to the "Trap or the Opportunity". We've taken a look at the nature of the opportunity. But there are some hidden traps in this movement as well. Let's look at some of them.

Trap #1

Further strengthening of state control at the expense of local control.

State control over curriculum is being strengthened such as in Maryland and Florida where the minimal competencies for graduation are set at the state level. To a large extent the definition of the minimal competencies required for graduation determine the content of the curriculum. If these competencies are defined at the state level, control of the portion of the curriculum related to these competencies is lost at the local level.

One possible way to avoid this trap is to enact legislation to provide support and incentives for local districts to define their own competencies to be required

for graduation. California does this. Another way would be to define general categories of competencies at the state level, then mandate that districts define their own specific graduation requirements related to the general categories. Oregon does this.

Trap #2

Trivializing the Curriculum and Confusing Minimums with Maximums. Many curriculum leaders, including Dr. Gordon Caweiti, Executive Secretary of the Association for Supervision and Curriculum Development, have expressed the concern that the minimum competencies will be interpreted by pupils as being maximums. Should this occur, pupils, once they master the minimums, will not be motivated to learn more. We have heard informally that some Oregon school districts have reported this problem.

A related problem can occur as teachers begin teaching the specific competencies to be tested. Teaching pupils to balance checkbooks, fill out application forms, and read bus timetables, for example, may take the place of teaching some higher level skills and more academically-related concepts. Curriculum specialists refer to this danger as the danger of trivialization.

It can be argued, of course, that adult survival skills are of such a high level of importance that the teaching of such skills must have precedence in the curriculum. It can also be argued that the curriculum can be organized in such a way that survival skills are taught in relation to academic concepts.

This particular trap, then, might be avoided if the faculty refuses to water down the curriculum to make room for newly-required skills instruction. Rather, faculty members might redesign the curriculum so that the skills to be tested are learned in relation to topics and concepts already included in the curriculum. Map reading for finding your way around town, for example, a commonly-identified survival skill, could be taught as a part of arithmetic when pupils are learning how to add and subtract decimals. Thus pupils, when learning an academic skill, can learn simultaneously the practical applications of that skill.

Trap #3

Non-Promotion of Pupils Failing to Meet Minimum Standards at Each Grade Level.

Some school districts have interpreted the competency based education movement to mean that minimal requirements should be set for promotion at each grade level. Pupils failing to meet minimum standards in accordance with some pre-established criteria, would not be promoted. The percentage of pupils not promoted at each grade level can be regulated by the test makers. Presumably such a practice will improve pupil performance by providing a constant threat of non-promotion to the lower achieving pupil.

Such a practice ignores the substantial research on the value - or lack of value - of retention as a motivating device. The research indicates clearly that non-promotion is damaging to a pupils' self-concept and to motivation to learn. There is no evidence that the practice will improve performance of pupils by "giving them a year to catch up" as is commonly believed.

The massive non-promotion trap can be avoided by using competency test information at each grade level, not as a basis for non-promotion but rather as diagnostic information to improve the efficiency of instruction. When, at the end of grade 3, for example, you learn that Mary is deficient in three major areas of competence, you don't just flunk Mary. Rather, in grade 4 you teach Mary what she needs to learn.

Trap #4

Failure to Provide Remedial Instruction.

It is a trap to wait too long to give the minimum competency tests for graduation. By law in Colorado, if a district established a competency based program, such tests must be given first in grade 9 and twice a year thereafter, and remedial instruction must be provided. Failure to provide remedial instruction for pupils who fail all or portions of the test is, perhaps, the biggest trap of all. Such a failure will result in the school district having to deny diplomas to large numbers of pupils who, if given help, could have mastered the required competencies.

Trap #5

Proliferation of Behavioral Objective Writing.

Some of you will remember that many school districts, with Department of Education encouragement, responded to the passage of the Colorado Accountability Act of 1971 by organizing committees of teachers to write hundreds of behavioral objectives for pupil performance. Collections of these objectives are gathering dust on closet shelves in some of the most prestigious school districts in the state.

It is a trap to require detailed behavioral objectives for a wide variety of minimal competencies which you wish to impose. Such writing exercises quickly exhaust the patience of faculties as they feel that they are generating syllabii which will, for the most part, be ignored by their fellow teachers. Typically this is exactly what happens.

Rather than fall into the objective-writing trap, start with a general description of what you expect pupils to be able to do - for example:

-- Read an editorial in the community's daily newspaper and summarize the editor's main points to the teacher.

-- Compute and number of miles per gallon your car gets when given the number of miles traveled since the last fill-up and the number of gallons needed to fill the tank.

-- Accurately fill out an application blank for a job at a local corporation or industry.

-- Read and pass the state driver's license examination.

Communicate this list of expected competencies to the faculty. Then develop a test or a procedure to demonstrate performance that relates to the competency list.

Trap #6

Setting the Minimal Competency Levels Too High.

One test designer I talked with told me that the first question he had to answer before he could design a test was, "How many pupils do you want to fail?" Obviously, the more difficult the questions, the higher percentage of failure will be.

One district I'm acquainted with is being pressured to set 12th grade reading ability as the minimum requirement for graduation. Acceptance of this recommendation would mean that from 50 to 70% of the district's seniors would be denied diplomas. It is estimated that 30% of Florida's seniors can't pass the state-imposed minimum competency graduation exam.

Setting standards too high contribites to two problems:

1) In some districts such a practice may result in a disproportionate number of minority and disadvantaged students failing the test. Not only is this unfair to the minorities and disadvantaged, it is also probably illegal.

2) Setting standards too high may create a substantial discrepancy among districts. If one district provides pupils with a comparatively easy test and the district next door develops a very difficult one, school districts are not treating pupils fairly. This can be avoided by school districts agreeing, on a regional basis, on some guidelines regarding the level of difficulty of their tests - or it can be avoided if state guidelines are adopted such as those developed in Oregon.

Denver, in my opinion, has the right approach. In Denver pupils are first tested in the 9th grade. Those who fail any section of the test may take alternate versions of the test for that section until it is passed. Pupils are not re-tested on sections of the test which they have already passed. Meanwhile, remedial instruction is given so that all pupils, given reasonable effort on their part, can pass all sections of the test. With this approach Denver has had to withhold only a very small number of diplomas - under 3% the last I heard.

Trap #7

Permitting Pupils to Leave School Early on the Basis of Test Results.

This is a trap because it encourages pupils to confuse minimums with maximums. Also the practice tends to downgrade the value of a high school education because it is based on the assumption that the contents of the test are equivalent in value to three years of high school learning.

From the point of view of the school district the practice poses some serious practical problems. Financial problems caused by declining enrollments are increased as more pupils leave school early. Also it is difficult - in many cases impossible - to decrease staff in the middle of the school year. Thus, the per-pupil cost of operating the second semester of a senior high school is increased.

There are also the problems of lack of employment for early graduates and of accommodating large numbers of 15 and 16 year-olds in community colleges and universities.

A district can avoid this trap by organizing a variety of worthwhile learning activities for pupils in the senior year. Dual credit programs can enable high school seniors to enroll in courses for credit at a community college and also receive credit for the course in high school. Advanced placement programs can enable pupils to earn college credit while still enrolled in high school. Also, the senior year can be used by both college-bound and employment-bound pupils to strengthen the basic skills they will need on the job or in college. It is an excellent time for pupils to exercise responsibility by entering into independent study contracts. A test is like a photograph of a running child taken by a nervous photographer at dusk.

Trap #8

Measuring All Competencies by a Minimal Competency Test.

Many competencies are more appropriately verified in real performance situations rather than by pencil and paper tests. Teacher observation is perhaps one of our most valuable evaluation procedures. Let's rely on pencil and paper tests only for verifying those competencies which can best be evaluated in that way.

Some Issues

I'd like to summarize some of the points which I have emphasized by mentioning briefly some of the major issues in the competency based education movement. Some of these issues are listed on your program. My comments on these issues are my own. You may disagree. If so, I hope you express your views at the 4:15 session this afternoon.

Issue #1 - What Constitutes a Minimum Competency and How is it to be Measured?

I'd like to recommend to you the definition of minimal competencies proposed by Kenneth A. Strike in the November 1977 issue of Educational Leadership [1]. The basic question, as Strike defines it, is this: "What kinds of knowledge and skills are of such import that the state has a right to apply coercion in order to get someone to acquire them?"

In response to his own question, Strike suggests that minimal competencies should be of two types:

1) Those competencies needed by individuals in order to participate at a minimal level in the democratic process, and
2) Those competencies a person needs in order to be self-supporting.

Strike feels, and I agree with him, that insofar as minimal competencies are concerned, society's primary obligation is to protect itself from people who are politically and economically incompetent. These are the people who are a burden to society all of their lives. Minimal literacy competencies are seen by Strike as necessary for the individual to become politically and economically competent.

Minimal competencies may be verified in two ways - through certification of performance by a qualified teacher and through a pencil and paper type competency test. Competency tests should be constructed to meet each community's specifications by an expert in test construction.

Issue #2 - Who Sets Minimum Standards?

Minimum standards should be set by the local Board of Education on the basis of studies made by a community's professional and lay leaders and on the basis of

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1 Strike, Kenneth A., "What is a Competent High School Graduate?" Educational Leadership, November 1977, pp. 93-97.

specific recommendations made by the Superintendent and staff. Standards should not be set at either the state or federal level.

Issue #3 - What Should Happen to Pupils Who Cannot Meet the Standards?

Pupils, other than those certified as educationally handicapped, who do not meet the standards should be denied a diploma. Educationally handicapped students may be given a diploma which shows that they are graduates of the district's special education program. I do not favor providing pupils with certificates of attendance; such certificates brand people for the rest of their lives as second class citizens.

Issue #4.- What Should Be Done to Reduce the Unfairness to Pupils Which Comes About if One District's Minimums are Higher than Another District's

Districts in a region within the state should agree on guidelines regarding the level of difficulty of minimum competency tests. To assist in this process the Colorado Department of Education might develop sample guideline statements for consideration by local districts.

Issue #5 - How Can Locally-Designed Minimal Competencies Best Be Tested?

In two ways: through professionally designed paper and pencil tests which are tailor-made to each district's list of competencies and through certification of performance judged by a professional teacher.

Issue #6 - Should Pupils be Allowed to Leave School as Soon as they Demonstrate Minimum Competencies?

My answer to this question is "No" for the reasons I've already given. Schooling offers young people much more than minimal competencies. We must avoid encouraging pupils to leave school without their capitalizing on all that the school has to offer. We need to be careful that we do not encourage our young people to confuse minimums with maximums.

Issue #7 - To what Extent do we Want our Schools to Serve a Screening Role for Society?

This is an issue I have not dealt with elsewhere in this presentation. I'd like to take a few minutes to explore it.

A major responsibility of our schools 50 years ago was to separate children who would be eligible for social mobility from those who would not be eligible. This is still the role of schools in most European countries.

To some extent, however, our schools have moved away from this role. We are proud of our community colleges and our extensive adult education programs. We are approaching a goal that no other major country has attempted - we want to make it possible for all individuals in our country to receive as much education as they desire and as they are able to assimilate. Education is seen as our country's major means of providing the opportunity for social and economic mobility to children from lower income families; it is the individual's opportunity to break out of the poverty cycle.

It is conceivable that the minimal competency movement could be used to deny educational opportunity to many of our young people. If the competencies are set too high; if remedial instruction is not provided; and if tests are designed to discriminate unfairly against minorities and the disadvantaged, we could be contributing to a return to the days when the school system was used as a major tool for keeping poor people in their place. This is a danger we should avoid.

The question should not be who should be promoted and who should not or who should graduate and who should not. Rather we should ask "How can we assure all of our young people of an opportunity for a place in the mainstream of our society.

We must be careful that the end result of the competency based education <u>not</u> be to deny large numbers of individuals full participation in the mainstream of our society.

<u>SUMMARY</u>

In this presentation we have looked at the competency based education movement both as an opportunity and as a possible trap. The movement provides us with the opportunity to develop curricula which are individualized and which contribute to each pupil's ability to function in an adult society. A curriculum which focuses

on developing specific competencies is a practical curriculum. It addresses itself to the ever-present student question, "Why should I learn this?"

Most, but not all of the traps we examined, are related to competency based graduation programs. As each trap was defined, I was able to give suggestions to avoid falling into it.

Finally, we looked at seven issues related to competency based education. I defined each issue briefly, then shared with you my own views on that issue. It is my hope that in the work session later this afternoon you will express your own views regarding these issues.

Competency based education is a movement which is gaining momentum every day. Some say it is sweeping the country. It is not a movement which if ignored will go away. We must deal with it in our state.

During this conference we have the opportunity to consider together, with expert assistance, how we might use the momentum of this movement to the benefit of our children and youth.

While you consider what this movement might mean to your schools in your community, I suggest you keep in mind the following incident.

Some time ago while I was working as a central office administrator in San Francisco, we held a two-hour, televised public meeting to discuss the school district's priorities for the next three years. I recall that several speakers, including both members of the audience and members of the Board of Education referred to pupils as "products" of the school.

Finally, a student stood up in the back of the room, asked to be recognized, then said the following:

"I wish to protest that my fellow students and I are <u>not</u> products - and we resent being treated as if we were. We are human beings and we have feelings, emotions, ambitions. We are not all alike. We know that we have a lot to learn. We <u>want</u> to learn. But we are not products and we refuse to be processed."

Let's help our young people improve their competencies in important ways. But let's resist turning our schools into factories and our curricula into assembly lines.